

Pollution Mobiles

Grades

Elementary and Middle School

Subject

Science and Art

Type of Lesson Plan

Activity

Duration

30 – 40 min to set up and go over expectations/review pollution

60 – 90 min to create the mobile

30 min to write paper

60 min to present

10 – 20 min to self assess

COULD BREAK OUT OVER A COUPLE OF DAYS

Materials

- | | | | |
|-------------|-------------------------------|---------------|-------------------|
| • Magazines | • Pamphlets | • Markers | • Scissors |
| • Tape | • Hangers | • Wood dowels | • Paper clips |
| • Glue | • Construction paper (colors) | • Crayons | • Colored pencils |

Objectives

TLW...

- Identify sources of air, water, land, and noise pollution and construct a mobile showing how the source is related to the type of pollution.
- Write a paper describing why the various sources of pollution in the mobile should be stopped or controlled.
- Present the mobiles to the class, orally.
- Appreciate the role pollution plays in human health and their local community.

Set

Do a review of sources/causes of pollution (see “Identifying Sources of Pollution” lesson plans).

Instructional Input

Explain the concept of a mobile for students who have not constructed one. Have examples on hand. Next, discuss the requirements and expectations.

Mobiles will illustrate the integration of air, water, land, and noise pollution as the four main branches under pollution with the sources hanging off the bottom. Beneath these should be the toxins associated with the source of pollution and below these, the adverse health effects these pollutants can cause.

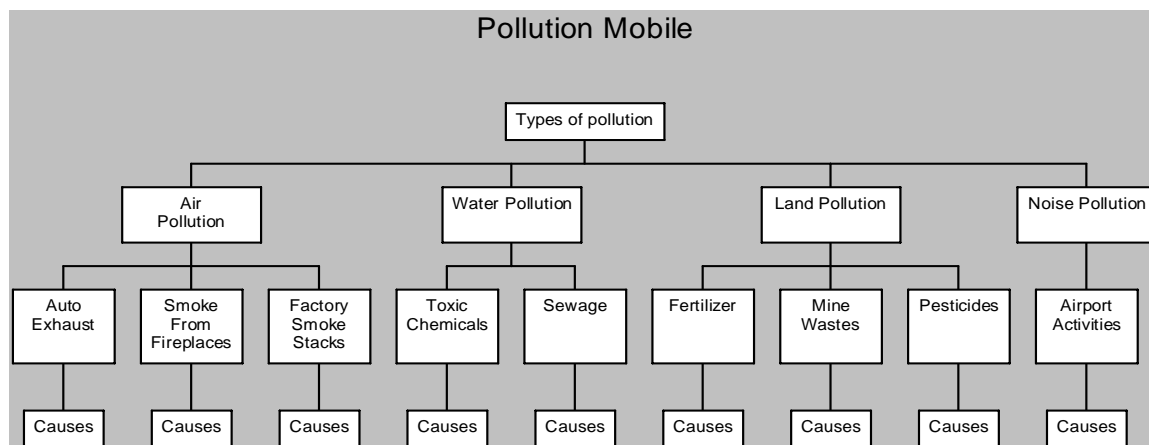
* **IMPORTANT** → Students should focus on only one or two examples in order to prevent the mobile from being too large and complicated. If you prefer, you can assign specific sources of pollution to specific students in order to avoid repetition of sources. Use the brainstormed list of sources from “Identifying Sources of Pollution.”

Students should use actual objects, magazine/pamphlet cut outs, drawings, computer graphics, and text to represent each level of the mobile. *Art tie in.*

Before constructing mobiles:

1. Go over the grading requirements. See evaluation below.
2. Stress proper use and sharing of materials.
3. STRESS clean up!

* As you can see from the sample below, too many examples lead to an unwieldy mobile.



Try and direct the students to cover examples/issues according to depth rather than breadth.

Evaluation

Evaluation will be based on the student’s mobile, a paper explaining the various aspects of the mobile, and a short oral presentation of the mobile to the class. *Tie in to English.* Rubrics for the three requirements are included with this lesson. However, you may choose to develop your own or, better yet, develop them with the class.

Pollution Mobile Rubric

Category	Excellent _____ <i>points</i>	Good _____ <i>points</i>	Room for Improvement _____ <i>points</i>
Neatness	Well constructed. Papers glued down neatly. Coloring and cutouts are neat.	Some of the string or pictures are peeling off. Coloring and cutouts are well done, not perfect.	Mobile shows signs of falling apart. Coloring and cutouts were not carefully completed.
Legibility	All words can be easily read from a distance of 2 feet.	Most words can be easily read from a distance of 2 feet.	Many words can not be read from a distance of 2 feet.
Examples	All examples of pollution and sources are correct and connected.	Most examples of pollution and sources are correct and connected.	Many examples of pollution and sources are not correct or are connected incorrectly.
Graphics	All graphics are neat and correctly represent pollution or sources.	Most graphics are neat and correctly represent pollution or sources.	Few graphics are neat and most incorrectly represent pollution or sources.

Pollution Mobiles Paper Rubric

Category	Excellent _____ <i>points</i>	Good _____ <i>points</i>	Room for Improvement _____ <i>points</i>
Neatness	Paper is written or typed neatly with no correction marks.	Paper is written or typed neatly with few (<5) correction marks.	Paper is not written or typed neatly. Writing should be neater, or there are many (>5) correction marks.
Spelling and Grammar	No spelling or grammar mistakes.	Few (<5) spelling or grammar mistakes.	Many (>5) spelling or grammar mistakes.
Length	Paper is the proper length, as assigned by the teacher.	Paper is <5 sentences longer/shorter than the proper length.	Paper is >5 sentences longer/shorter than the proper length.
Explanation of Mobile	Paper explains every aspect of the mobile clearly. The reader knows how each piece of the mobile relates to the piece above and below it.	Paper explains most aspects of the mobile. The reader knows how most pieces of the mobile relate to the pieces above and below it.	Paper explains few aspects of the mobile. The reader doesn't know how the pieces of the mobile relate to the pieces above and below it.

Pollution Mobile Presentation Rubric

Category	Excellent _____ <i>points</i>	Good _____ <i>points</i>	Room for Improvement _____ <i>points</i>
Poise	Stands with proper posture. Does not shuffle or fidget.	Posture is good. Speaker fidgets or moves around some.	Stands with poor posture. Excessive fidgeting or movement.
Annunciation and Volume	Speaker can be heard from the back of the room. All words are clearly spoken and easily understood.	Speaker can be heard from the back of the room most of the time. Most words are clearly spoken and easily understood.	Speaks too softly and/or many words are difficult to understand.
Explanation of Mobile	Speaker explains every aspect of the mobile clearly. The reader knows how each piece of the mobile relates to the piece above and below it.	Speaker explains most aspects of the mobile. The reader knows how most pieces of the mobile relate to the pieces above and below it.	Speaker explains few aspects of the mobile. The reader doesn't know how the pieces of the mobile relate to the pieces above and below it.

It is considered good practice to provide examples of mobiles and let the students use the rubric to judge the examples. This helps them to assess their own work using the rubric. If you wish, the students can peer critique each other's mobiles and papers prior to finalizing and handing them in. Additionally, they may want to pick partners and practice their presentation before presenting in front of the class.

Closure

Hang up the mobiles either in your classroom or the library. As appropriate, encourage discussion about how pollution affects people's health using specific examples from the mobiles. Examples with local relevancy are extremely valuable here.